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Eric Kuhn
“The flow of Colorado River and its tributaries is not sufficient. . . .”

– Eugene Clyde LaRue, to the U.S. Senate Committee on Irrigation and Reclamation, December 1925
1916 – six years before the Compact

E.C. LaRue’s first attempt to go beyond the gauge record
“The flow of the Colorado River and its tributaries is not sufficient to irrigate all the irrigable lands lying within the basin.”

“sufficient water for the irrigation of all the lands”
– A.P. Davis, 1922

Arthur Powell Davis, director, U.S. Reclamation Service, first meeting of the Colorado River Compact Commission, Jan. 26, 1922
WATER POWER AND FLOOD CONTROL
OF
COLORADO RIVER BELOW GREEN RIVER, UTAH

BY
E. C. LARUE

WITH A FOREWORD BY
HUBERT WORK
SECRETARY OF THE INTERIOR

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WASHINGTON
GOVERNMENT PRINTING OFFICE
1925
The numbers used to negotiate the Colorado River Compact – the “Fall-Davis Report”

- Measurement at Laguna Dam
- Period of record 1899-1920
- Used actual measured flow, without accounting for upstream diversions
Herman Stabler, USGS, 1923

Uses river stage measurements at the Yuma railroad bridge to estimate actual flows 1878 - 1920
Herman Stabler, USGS, 1923

Stabler’s numbers suggest an average annual flow of 14.3 maf
E.C. LaRue, USGS, 1925

- Corrects for changes in upstream depletions over time
- Uses Great Salt Lake as a proxy to extend record back in time
- 1875 - 1922
Kuhn and Fleck, *Science be Dammed*
The first “natural flow” calculation

- **18.1** million acre feet at Lee Ferry
- **Arthur Powell Davis**, 1923
- **Period of record:** **1903 - 1920**
The Colorado River: the traditional view
IMPORTANT MESSAGES FOR TODAY

• Inequities Between the Two Basins – LB Uses >10 MAF, UB Uses about 4.5 MAF, With fixed obligations @ Lee Ferry the UB has most of the risk of climate change

• Many of the Disputed Compact Issues from the 50s, 60s, & 70s were never resolved – Have they been forgotten?

• UB’s Mexican Treaty delivery, How Apportionments are Measured, LB Tributary Uses (LB Compact), LB Reservoir Evaporation, the Meaning of Articles III(a) & (b). Native American Rights

• For the post 2026 River Management Guidelines, will these unresolved issues be forgotten or will they be resolved?